

**Claims**

- 5 1. A joining construction for mounting CCD cells of a color line camera in an aligned fashion on a color splitting prism, which is attached to a prism housing, said joining construction comprising: fastening elements having a length substantially larger than the length of the CCD cell and extending from a housing margin on one side of a light exit surface of said color splitting prism to another housing margin on the opposite side of said light exit surface; a first glue joint between the CCD cell and its fastening element; and third glue joints said fastening element and said margins of the housing.
- 10 2. A joining construction of claim 1, comprising for each CCD cell:  
 - heat distribution piece(s), that extend(s):  
 - along the opposite sides of the housing and along the ends of said fastening element, or  
 - along the back side of the fastening element, whereupon  
 15 each fastening element is further attached to said heat distribution pieces by second glue joints; or alternatively  
 - extensions of the fastening element, which extensions extend along the opposite sides of the housing.
- 20 3. A joining construction of claim 2, further comprising one or several Peltier elements, which is/are in surface contact with the heat distribution pieces in order to reduce the temperature differences between the joining construction components and the prism.
- 25 4. A joining construction of claim 1, wherein the first glue joint is a thermally conductive glue with a heat transfer coefficient that is at least 0.6 W/m·K.
5. A joining construction of claim 2, wherein the second glue joints are a thermally conductive glue with a heat transfer coefficient that is at least 0.6 W/m·K.
- 30 6. A joining construction of claim 1, wherein each fastening element includes front surfaces that are substantially parallel to the photosensitive surface of the CCD cell; at each exit surface said two housing margins are essentially parallel to said exit surface of the color splitting prism; and said front surfaces are supported against said housing margins.

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24. A method of claim 16, wherein heat distribution pieces and fastening element extensions are attached to the prism housing:

- with a fourth thermally insulating glue; or
- by arranging an insulation between the heat distribution pieces and the prism housing, and by fastening the heat distribution pieces to the housing by mechanical fastening elements.

25 A method of claim 16, wherein the employed first glue is a thermally conductive glue, with a heat transfer coefficient of at least 0.6 W/m·K.

26. A method of claim 16, wherein the employed third glue is a thermally insulating glues or cast plastics with a heat transfer coefficient of no more than 0.3 W/m·K.

27. A method of claim 17 or 18, wherein the employed second glue are thermally conductive glues, with a heat transfer coefficient of at least 0.6 W/m·K.

28. A method of claim 24, wherein the employed fourth glue are thermally insulating glues or cast plastics with a heat transfer coefficient of no more than 0.3 W/m·K.

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